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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/555,306	10/06/2000	Volker Timm	PHD98-119	3905

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EXAMINER

KIM, AHSHIK

ART UNIT

PAPER NUMBER

2876

DATE MAILED: 05/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/555,306

Applicant(s)

TIMM ET AL.

Examiner

Ahshik Kim

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03/25/03 (RCE).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in
5 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is
eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e)
has been timely paid, the finality of the previous Office action has been withdrawn pursuant to
37 CFR 1.114. Applicant's submission filed on March 25, 2003 has been entered (paper #14).

Amendment

2. Pursuant to RCE filed on March 25, 2003, previously submitted amendment (paper #12)
is entered. In the amendment, claim 1 was amended, and claim 7 was newly added. Currently,
claims 1-7 remain for examination.

Specification

3. The abstract of the disclosure is objected to because of following informality:

Delete "Fig. 1" on line 11 of Abstract.

Appropriate correction is required. See MPEP § 608.01(b).

4. The title of the invention is not descriptive. It is the Examiner's opinion that although
current title "data carrier" is descriptive, it is vague and broad. As the first line of the abstract
reads, "A data carrier, notably a chip card, which", "Chip card" may be a better title.

The Applicant is respectfully suggested to amend the title clearly describing the claimed invention.

Claim Rejections - 35 USC § 103

5 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

10 (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

 This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various
15 claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

20 5. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Asami (US 6,036,100, of record) in view of Commercial (WO 99/23550, in which an English translation is provided with US 6,317,825 B1, of record).

 Asami teaches a non-contact chip card 1 which includes a processor 8, the card able to
25 connect to a reader 2 to exchange data signals via card interface antenna 3 and electrical energy via antenna 3 and rectification circuitry 9 for operation of the processor (see figure 1 and col. 3,

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lines 27-53). The interface antenna is coupled to the processor by an asynchronous transmission/receiving circuit (UART) 6.

Asami fails to specify that the processor contain mostly asynchronous logic components, the processor operating in a time-interleaved manner.

5 The concept of asynchronous logic circuitry is notoriously well known in the art to be used within cards and/or card readers. Commercial teaches the use of asynchronous logic inside a microprocessor of a chip card (see entire patent, specifically abstract and col. 1, line 16 – col. 2, line 20). Commercial discloses that it is well known to use such for concatenating or interleaving data or operations, while consuming as little power and operating time as possible.

10 In combination with the card of Asami, the consumption of as little power as possible from the energy provided in the signal gives the antenna the function of a reasonably ideal current (power) source for the card. In light of the motivation of Commercial, it would have obvious to one of ordinary skill in the art to provide the asynchronous logic within the processor of Asami.

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Response to Remarks

6. In the amendment, the Applicant further limited independent claim 1 by adding the phrase “using the received electrical energy and without using a predetermined time frame from the read/write apparatus”. In preparing the Office Action, the Examiner carefully reviewed the claim language and specification (page 2 thereafter) to understand “predetermined time frame” and “time interleaved manner” recited in claim 3.

20

It appears that the Applicant added cited limitation in claim 1 to overcome the teachings provided in Asami reference, since Asami reference utilizes predetermined time limit to ensure successful reception/transmission of the data from/to the host machine. However, the way claims are drawn, it appears that the Applicant claims a data carrier comprising asynchronous operating
5 logic components without using a predetermined time frame from the read/write apparatus. The Examiner emphasizes that asynchronous communication components inherently function without being limited by system clock. Asynchronous is defined as “of, used in, or being digital communication (as between computers) in which there is no timing requirement for transmission and in which the start of each character is individually signaled by the transmitting device”
10 (Merriam-Webster’s Collegiate Dictionary, 10th edition). Accordingly, clock or timing aspect is precluded in asynchronous mode. Instead, transmission of various signals such “ready to receive or transmit”, “acknowledgment of transmission”, “probe”, etc are used to coordinate communication between devices. Predetermined time disclosed in Asami is an additional programmatic means beyond asynchronous protocol to ensure successful communication and
15 integrity of data between the host and contactless IC card.

Newly added claim 7 also seems to suggest that predetermined time frame in Asami is a clock signal used in asynchronous communication. The Examiner contends that they are two separate concepts.

In view of the above, Asami in view of Commercial still teaches all the elements claimed
20 in claims 1-7 of instant application.

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Conclusion

I. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Kim (US 6,027,029); Sedlak et al. (US 6,059,452); Kuriyama (US 6,125,452); Montgomery et al. (US 6,157,966) disclose an IC card and asynchronous communication between IC cards and host.

II. Any inquiry concerning this communication or earlier communications from the examiner should be directed to *Ahshik Kim* whose telephone number is (703)305-5203 . The examiner can normally be reached between the hours of 6:00AM to 3:00PM Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee, can be reached on (703)-305-3503. The fax number directly to the Examiner is (703) 746-4782. The fax phone number for this Group is (703)308-7722, (703)308-7724, or (703)308-7382.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [ahshik.kim@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

Ahshik Kim
Patent Examiner
Art Unit 2876
May 21, 2003

MICHAEL G. LEE
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